

## **TITLE 17. CALIFORNIA AIR RESOURCES BOARD**

### **NOTICE OF PUBLIC HEARING TO CONSIDER AMENDMENTS TO THE TABLES OF MAXIMUM INCREMENTAL REACTIVITY (MIR) VALUES**

The Executive Officer of the California Air Resources Board (Board or ARB) will conduct a public hearing at the time and place noted below to consider amendments to the Tables of Maximum Incremental Reactivity (MIR) Values.

DATE: November 3, 2009

TIME: 9:00 a.m.

PLACE: California Environmental Protection Agency  
Air Resources Board  
Sierra Hearing Room  
1001 I Street  
Sacramento, California 95814

This hearing will be conducted by the Executive Officer or an individual designated by him pursuant to the authority set forth in sections 39515 and 39516 of the Health and Safety Code. The agenda for the hearing will be available at least 10 days before November 3, 2009.

If you require a special accommodation or need this document in an alternate format or language, please contact the Clerk of the Board at (916) 322-5594 or by facsimile at (916) 322-3928 as soon as possible, but no later than 10 business days before the scheduled Board hearing. TTY/TDD/Speech to Speech users may dial 711 for the California Relay Service.

### **INFORMATIVE DIGEST OF PROPOSED ACTION AND POLICY STATEMENT OVERVIEW**

**Sections Affected:** Proposed amendments to sections 94700 and 94701, title 17, California Code of Regulations (CCR).

#### **Background:**

The Regulation for Reducing the Ozone Formed from Aerosol Coating Products (the "Aerosol Coating Products Regulation;" sections 94520–94528, title 17, CCR) contains limits that restrict the ozone-forming potential of volatile organic compounds (VOC) found in aerosol coatings. These VOC limits rely on the reactivity values contained in the Tables of Maximum Incremental Reactivity (MIR) Values (sections 94700 and 94701, title 17, CCR). The ARB staff also use these Tables for several other purposes, such as modeling for the State Implementation Plan and the fuels program.

At its June 22, 2000, public hearing, the Board approved the Table of MIR Values, which became legally effective on July 18, 2001. In Resolution 00-22, which approved

the rulemaking action, the Board directed the Executive Officer to periodically review the MIR values to determine if modifications to the MIR values are warranted. The Board also delegated to the Executive Officer the authority to adopt regulatory amendments to the Tables of MIR Values, and to conduct public hearings and take other appropriate actions to make such amendments. This delegation of authority allows the Executive Officer (or his/her delegate) to conduct these activities on behalf of the multi-member Board, as provided in Health and Safety Code sections 39515 and 39516.

The existing Tables of MIR Values were calculated using the SAPRC-99 chemical mechanism for ozone formation that was developed by Dr. William Carter at the University of California, Riverside. The Tables of MIR Values are contained in two sections of title 17, CCR. Section 94700 contains the MIR values for individual reactive organic compounds. Section 94701 contains the MIR values for different types of hydrocarbon solvents.

Revisions to the Tables of MIR Values were adopted at an Executive Officer hearing on December 3, 2003. In this rulemaking, 102 new compounds with their associated MIR values were added to section 94700. Most of these compounds are those Dr. Carter added into his tabulation of MIR values while making assignments for the SAPRC-99 mechanism for various emissions inventories. MIR values for 14 existing compounds listed in section 94700 were also amended. These updated MIR values were also based on research conducted by Dr. Carter. These amendments became legally effective on June 7, 2004.

In accordance with the Board's direction to ensure continued use of the best science in ARB's regulations, ARB funded research by Dr. Carter to update the SAPRC-99 chemical mechanism. That research led to the development of an improved chemical mechanism for ozone formation, called SAPRC-07. Dr. Carter's experimental work enabled the determination of MIR values for hundreds of additional VOCs, and revealed that some compounds need significant changes to their MIR values. Based on Dr. Carter's review, MIR values would change by about 12 percent overall. For 70 percent of the VOCs, MIR values would change by less than 20 percent. However, for 16 of the VOCs, MIR values would change by more than 60 percent.

An external scientific peer review is required by California Health and Safety Code Section 57004 for the scientific portion of the proposed amendments, including the updated MIR values. After extensive peer review, the ARB's Reactivity Scientific Advisory Committee (RSAC) reviewed and approved the scientific basis of the MIR values proposed by Dr. Carter.

### **Description of the Proposed Regulatory Action**

Staff is proposing amendments to the Tables of MIR Values contained in sections 94700 and 94701, title 17, CCR. Section 94700 sets forth the MIR values for various organic compounds and mixtures. Section 94701 sets forth the MIR values for different types ("bins") of hydrocarbon solvents, based on the average of their mean boiling ranges, aromatic content, and alkane content.

Staff is also proposing to update the MIR values for all compounds that are currently listed in section 94700, and to add hundreds of new compounds with their associated MIR values. A new column labeled “New MIR Value [Effective Date]” will be added to section 94700 to display the updated MIR values for the currently listed compounds, as well as the MIR values for the newly added compounds.

A change in methodology for calculating MIR values for 24 different bins of hydrocarbon solvents (contained in section 94701, title 17, CCR) is also proposed. This change in methodology enables the convenient recalculation of bin MIR values whenever the underlying chemical mechanism is updated. In addition, the new SAPRC-07 mechanism provides updated MIR values for the hydrocarbon constituents. Using these sources of information, Dr. Carter re-calculated the MIR values for these 24 bins. Accordingly, ARB staff proposes to update the MIR values contained in section 94701.

Although staff proposes to update the MIR values for all the existing compounds currently listed in section 94700 and the 24 hydrocarbon mixtures in section 94701, it should be noted that the MIR values dated July 18, 2001 must continue to be used by aerosol coating manufacturers. When the aerosol coatings regulation was developed, to provide stability to manufacturers as MIR values are updated to reflect improved science, the regulation specifies that the MIR values dated July 18, 2001 are to be used and those values are not to change until June 1, 2007 [see § 94523 (h)(2)(A)]. The exception to this is that any new compounds added in subsequent amendments to the Tables of MIR Values can be used once legally effective [see § 94523 (h)(2)(B)]. The 2007 date was put into the regulation to provide manufacturers a minimum timeframe in which the MIR values would remain the same.

The MIR values dated July 18, 2001, were also used as the basis for the reactivity limits for aerosol coating products. To ensure that the air quality benefits continue to be preserved it is important that the same set of MIR values are used both for the VOC reactivity limits and calculation of PWMIR. Therefore, while we are proposing to amend the Tables of MIR Values, the MIR values dated July 18, 2001, must continue to be used by aerosol coatings manufacturers until such time as the Aerosol Coatings Regulation is amended. However, any new compound proposed for addition to the Table in this rulemaking, with its associated MIR value, can be used.

## **COMPARABLE FEDERAL REGULATIONS**

Effective June 23, 2009, the U.S. Environmental Protection Agency (EPA) adopted a rule setting national VOC emission standards for aerosol coatings. The rule included a table of compounds, and their corresponding reactivity factors, that are used to manufacture aerosol coatings. This national regulation was modeled after the ARB’s Regulation for Reducing Ozone Formed from Aerosol Coating Product Emissions, and established a uniform reactivity-based standard for aerosol spray paints. U.S. EPA’s adopted reactivity factors are consistent with the existing values used in the ARB’s aerosol coatings regulation.

## **AVAILABILITY OF DOCUMENTS AND AGENCY CONTACT PERSONS**

ARB staff has prepared a Staff Report: Initial Statement of Reasons (ISOR) for the proposed regulatory action, which includes a summary of the economic and environmental impacts of the proposal. The report is entitled: Proposed Amendments to the Tables of Maximum Incremental Reactivity (MIR) Values.

Copies of the ISOR and the full text of the proposed regulatory language, in underline and strikeout format to allow for comparison with the existing regulations, may be accessed on ARB's website listed below, or may be obtained from the Public Information Office, Air Resources Board, 1001 I Street, Visitors and Environmental Services Center, First Floor, Sacramento, California, 95814, (916) 322-2990, at least 45 days prior to the scheduled hearing on November 3, 2009.

Upon its completion, the Final Statement of Reasons (FSOR) will be available and copies may be requested from the agency contact persons in this notice, or may be accessed on ARB's website listed below.

Inquiries concerning the substance of the proposed regulation may be directed to the designated agency contact persons in the Research Division: Ralph Propper, at (916) 323-1535 or Dr. Dongmin Luo, Manager, Air Quality and Climate Science Section, at (916) 324-8496.

Further, the agency representative and designated back-up contact persons to whom non-substantive inquiries concerning the proposed administrative action may be directed are Lori Andreoni, Manager, Board Administration and Regulatory Coordination Unit, (916) 322-4011, and Amy Whiting, Regulations Coordinator, (916) 322-6533. The Board staff has compiled a record for this rulemaking action, which includes all information upon which the proposal is based. This material is available for inspection upon request to the contact persons.

This notice, the ISOR, and all subsequent regulatory documents, including the FSOR, when completed, are available on the ARB website for this rulemaking at <http://www.arb.ca.gov/regact/2009/mir2009/mir2009.htm>

## **COSTS TO PUBLIC AGENCIES AND TO BUSINESSES AND PERSONS AFFECTED**

The determinations of the Board's Executive Officer concerning the costs or savings necessarily incurred by public agencies and private persons and businesses in reasonable compliance with the proposed regulations are presented below.

Pursuant to Government Code sections 11346.5(a)(5) and 11346.5(a)(6), the Executive Officer has determined that the proposed regulatory action would not create costs or savings to any State agency or in federal funding to the State, costs or mandate to any local agency or school district, whether or not reimbursable by the State pursuant to Government Code, title 2, division 4, part 7 (commencing with section 17500), or other nondiscretionary cost or savings to State or local agencies.

In developing this regulatory proposal, ARB staff evaluated the potential economic impacts on representative private persons or businesses. The ARB is not aware of any cost impacts that a representative private person or business would necessarily incur in reasonable compliance with the proposed action.

The Executive Officer has made an initial determination that the proposed regulatory action would not have a significant statewide adverse economic impact directly affecting businesses, including the ability of California businesses to compete with businesses in other states, or on representative private persons.

In accordance with Government Code section 11346.3, the Executive Officer has determined that the proposed regulatory action would not affect the creation or elimination of jobs within the State of California, the creation of new businesses or elimination of existing businesses within the State of California, or the expansion of businesses currently doing business within the State of California. A detailed assessment of the economic impacts of the proposed regulatory action can be found in the ISOR.

The Executive Officer has also determined, pursuant to California Code of Regulations, title 1, section 4, that the proposed regulatory action would not affect small businesses because the proposed amendments do not impose any requirements leading to a physical change.

Before taking final action on the proposed regulatory action, the Executive Officer must determine that no reasonable alternative considered by the ARB staff, or that has otherwise been identified and brought to the attention of the ARB staff, would be more effective in carrying out the purpose for which the action is proposed, or would be as effective and less burdensome to affected private persons than the proposed action.

### **SUBMITTAL OF COMMENTS**

Interested members of the public may also present comments orally or in writing at the meeting and may be submitted by postal mail or by electronic submittal before the meeting. To be considered by the Board, written comments, not physically submitted at the meeting, must be received **no later than 12:00 noon, November 2, 2009**, and addressed to the following:

Postal mail: Clerk of the Board, Air Resources Board  
1001 I Street, Sacramento, California 95814

Electronic submittal: <http://www.arb.ca.gov/lispub/comm/bclist.php>

Please note that under the California Public Records Act (Gov. Code, § 6250 et seq.), your written and oral comments, attachments, and associated contact information (e.g., your address, phone, email, etc.) become part of the public record and can be released to the public upon request. Additionally, this information may become available via Google, Yahoo, and any other search engines.

The Executive Officer requests, but does not require, that 10 copies of any written statement be submitted and that all written statements be filed at least 10 days prior to the hearing so that ARB staff have time to fully consider each comment. The Executive Officer encourages members of the public to bring to the attention of staff in advance of the hearing any suggestions for modification of the proposed regulatory action.

## **STATUTORY AUTHORITY AND REFERENCES**

This regulatory action is proposed under the authority granted to the ARB in sections 39600, 39601, and 41712 of the Health and Safety Code. This action is proposed to implement, interpret, or make specific sections 39002, 39600, 40000, and 41712 of the Health and Safety Code.

## **HEARING PROCEDURES**

The public hearing will be conducted in accordance with the California Administrative Procedure Act, Government Code, title 2, division 3, part 1, chapter 3.5 (commencing with section 11340).

The public hearing will be conducted by the Executive Officer of ARB or a designee of the Executive Officer, in accordance with the California Administrative Procedure Act, title 2, division 3, part 1, chapter 3.5 (commencing with section 11340) of the Government Code. Following the public hearing, the Executive Officer may adopt the regulatory language as originally proposed or with non-substantial or grammatical modifications. The Executive Officer (or designee) may also adopt the proposed regulatory language with other modifications if the modifications are sufficiently related to the originally proposed text that the public was adequately placed on notice that the regulatory language as modified could result from the proposed regulatory action. In the event that such modifications are made, the full regulatory text, with the modifications clearly indicated, will be made available to the public for written comment at least 15 days before it is adopted.

The public may request a copy of the modified regulatory text from ARB's Public Information Office, Air Resources Board, 1001 I Street, Visitors and Environmental Services Center, First Floor, Sacramento, California, 95814, (916) 322-2990.

CALIFORNIA AIR RESOURCES BOARD

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James N. Goldstene  
Executive Officer

Date: September 8, 2009

*The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our website at [www.arb.ca.gov](http://www.arb.ca.gov).*